Master, Tug, Class I **Bmk. No. C-03**
XH-5782-13

MAJOR DUTIES

Serves as Master of a large tugboat over 65 feet in length, displacing up to 500 gross tons, and up to a total 2000 horsepower, with assigned crew. The crew consists of mates, engineers, deckhands, etc. Vessels of this type typically operate rivers, channels or harbor areas, where they tend a variety of floating plant engaged in harbor/channel/waterway maintenance. Operating conditions typically include maneuvering in abnormally heavy boat traffic, including avoiding moving and moored vessels, combating strong winds, tides and current, etc.

1. Receiving orders or assignments, performs duties to pilot the tugboat and towing a variety of non-self-propelled craft such as: dredge SCOWS, sweep rafts, catamarans, pump barges, derrick barges, etc. used for harbor/channel maintenance. Sets and removes anchors of plant, and ties up and/or anchors barges in storage when not in use. Transports personnel, supplies, and equipment to and from working plant, insuring safety during transport.

2. Sets course of the ship, using navigational aids. Steers and navigates vessel through the restricted and heavily used harbors and channels and connecting waterways. Observes general weather conditions, uses forecasts and other appropriate indicators to determine when it is safe to travel.

3. Plans, directs and coordinates the work activities of assigned crew members. Establishes deadlines and priorities, explains procedures and work methods, reviews work in progress or upon completion and evaluates work performance.

4. Conducts safety meetings and necessary life saving drills for the adequate protection of the crew. Maintains proper marine equipment aboard the vessel, such as: lights, fire, lifesaving, and first aid equipment. Requisitions, maintains and controls all necessary mess and maintenance supplies, equipment, tools, fuel, parts, as well as accountable property assigned to the vessel. Maintains daily log of operating, submits required operations and administrative reports.

5. Responsible for proper mechanical repairs and maintenance of the vessel, including minor repairs, painting, and housekeeping functions. Recommends the nature and extent of alterations and repairs, both mechanical and general, to be made during winter lay-up. Supervises and checks the work performed, and coordinates the repair work with estimates and approved budgets.

Performs other duties as assigned.

SKILLS AND KNOWLEDGES

--Knowledge of navigation rules and regulations required by the U.S. Coast Guard, for waters in which the vessel operates. Must have a current U.S. Coast Guard Master’s license appropriate to the size and use of the assigned vessel.

--Ability to navigate and maneuver the vessel to required work locations, and conduct vessel handling or towing in a safe and efficient manner under diverse weather, channel, traffic, and maneuvering conditions.

--Skill in the operation of engine and steering controls as well as the use of auxiliary equipment such as generators, winches, pumps, and other related items. Must be able to perform most routine operator-type maintenance and repairs.

--Knowledge of basic lifesaving and emergency first aid including launching of life rafts, use of survival suits, PFD s and work vest. Knowledge of immediate action required for severe bleeding, hypothermia, electrical shock and other life threatening situations.

--Knowledge of fire fighting, including classes of fires, fire fighting systems, equipment, and fire prevention, to include handling of dangerous materials and fuel.

--Knowledge of the characteristics and limitations of the vessel operated and its mechanical, electrical, electronic, and hydraulic systems in order to direct the safe and efficient operations and make decisions concerning necessary maintenance and repairs.

RESPONSIBILITY

Works under the administrative direction of the supervisor, who provides verbal instructions in the operation of the tug and in tending floating plant. Receives instruction as to time of movement, location to which plant is to be moved, manner which plant is to be moved, the manner of movement within the work area and points of pick-up and delivery of personnel and supplies. Responsible for performing work according to directives, district regulations and navigational rules. Has complete charge of the vessel. Notifies supervisor of any breakdowns, adverse weather conditions, or any matters likely to cause delay in operations. Work is occasionally spot-checked through supervisory visits for compliance with policy, regulations; and accomplishment of assigned objectives.

PHYSICAL EFFORT

Light physical effort is required while standing watch and operating the wheel and other controls. Somewhat greater effort is required in accomplishing housekeeping and general maintenance work. Occasional heavy effort is required in making and breaking tows, loading supplies and equipment, and accomplishing some repair work. Close hand and eye coordination is required when operating controls to maneuver vessel and tows in traffic and in confined areas. Extensive standing and walking may be necessary while standing watch.

WORKING CONDITIONS

Incumbent works predominately in an enclosed wheelhouse, but is also subject to working out on deck for brief periods in all types of weather conditions. Employee is exposed to injury from falls due to slippery decks and erratic movements of the vessel, and to the possibility of falling

overboard. A life jacket is worn at all times when on deck. Operators are also exposed to a moderate degree of noise and vibration from the engines, and to greater noise levels and to soil from grease and other chemical substances when servicing or making minor mechanical repairs to engines and equipment.

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EVALUATION STATEMENT

1. REFERENCES:

   a. OPM, Handbook of Occupational Groups and Families, WG-5782 series, Ship Operating, August 2001

   b. U.S. Army Corps of Engineers Ladder Diagram, 1953

2. SERIES AND TITLE DETERMINATION:

Subject position serves as Master of a tugboat greater than 65 feet in length, with assigned crew, usually engaged in tending and supplying floating plant construction and maintenance units and collecting drift, wreckage and debris. Vessels of this type typically operate in rivers, channels or harbor areas, where they tend a variety of floating plant engaged in harbor/channel/waterway maintenance. Vessel operation may be single or multi-watch depending on the work situation. Position is descriptively titled Master, Tug, Class I, consistent with maritime industry practices.

This position exceeds the XH-08 benchmark for the Master, Tug, Class II, which operates a smaller tugboat than the Tug, Class I resulting in less complex work assignments, and has a smaller crew complement. This position does not meet the Master, Towboat, XH-5784-16 level where the vessel is significantly larger, the crew is much larger, and the vessel operates three shifts .

NOTES ON USING THIS BENCHMARK

In grading Master, Tug, Class I positions, there are several job characteristics which can be used as a basis for comparing work situations with the benchmark job. One ranking factor can be the physical characteristics of the vessel (i.e., length, horsepower, crew size). Significant differences from these parameters which impact upon the skill or licensing requirements of the operator, and which are clearly reflected in the work performed by the vessel, could be used to help support a higher or lower grade level for the operator. Other criteria which may be considered in ranking Master, Tug, Class I jobs are factors such as the size and types of tows transported, channel and weather conditions under which the vessel operates, nature of assignments, etc. Therefore, local work situations which regularly require transport of significantly larger tows or which are limited only to much smaller tows could use this difference as a factor in support of a different grade level. Similarly, vessels which regularly work on open waters or in severely restricted channels which make navigation or maneuvering difficult, or which are required to operate regardless of the severity of weather or sea conditions could use these differences as partial justification for higher grades.